

REMARKS

After the filing of applicants' Appeal Brief, the Office abandoned each of the earlier "final" rejections, and has restarted prosecution based on new art.

In response, applicants have amended claims 6 and 11, and added new claims 20-33. Claims 6-11 and 19-33 are thus pending in the application.

In a first rejection of claim 6, the claim has been rejected as anticipated by Leon (6,701,304).

Claim 6, as amended, requires that the watermark comprise a machine-readable pattern. Leon does not teach such an arrangement. Indeed, he suggests that his microprinting is too fine to be discerned by machine (*c.f.*, col. 10, line 33, which notes that his printing bleeds into a solid line if xerographically copied).

Claims 20-27 are added to further detail the envelope of claim 6, and are also properly patentable over the art.

New dependent claims 20-22, for example, specify that the envelope also include a franking mark, and that both the franking mark and the fragile digital watermark are printed by the same printer, where the printer has a print resolution of 1200/600/300 dots per inch or less.

Leon does not give enabling details about his microprinting. He does not specify, for example, the height of the microprinted characters, nor the print resolution used. However, he notes that his microprinting is too fine to be reproduced by photocopying, i.e., that it "*bleeds into a solid line if xerographically copied*" (col. 10, lines 30-32).

Leon's specification claims priority to various provisional filings in 1998. Applicants' related application 09/127,502, filed July 31, 1998 (now patent 6,345,104), noted that "*Higher quality scanners of the sort found in most professional imaging equipment and photocopiers have resolutions of 600 dpi (42 microns), 1200 (21 microns), or better.*" Thus, if scanned at a resolution of "1200 dpi or better" with such a photocopier, then Leon's microprinting must have a resolution significantly better than 1200 dpi if it is to "bleed into a solid line if xerographically copied."

Support for the limitations introduced by dependent claims 20-22 is found, e.g., in application 09/503,881 (now patent 6,614,914), which refers to watermarked imagery being

printed at a resolution of, e.g., 100 to 300 dpi (col. 22, line 31). Similarly, application 09/074,034 (filed May 6, 1998, now patent 6,449,377), refers (at col. 16, lines 5-7) to "photographic quality color ink-jet printers are commonly available from Hewlett-Packard Co., Epson, etc. for under \$300." Submitted herewith as Exhibit A is a datasheet for the HP DeskJet 720C/722C printer, which is characterized as "*a wildly successful printer for HP. Many millions of them were sold between 1998 and 2000.... The actual street price varied between \$249 and \$299.*" This printer had a resolution of 600 dpi.

(Applicants' other applications, noted above, were referenced at page 1, lines 4-12 of the present specification, and were incorporated-by-reference through language found at page 11, lines 7-9.)

The present specification (filed in 2000) notes that "*Computer printers have long been used to print addresses on envelopes. For many years, a variety of similar printing technologies have been used to print metered postage on envelopes.*" (Page 1, lines 17-19.) The specification then goes on to explain how such technology can be adapted to employ watermarking, according to the present invention. The 600 dpi printers that were popular in 1998 had reached 1200 dpi in some consumer models in 2000. (See, e.g., February, 2000, announcement of the HP DeskJet 840C, evidenced by Exhibit B.) Thus, the present specification fairly teaches that computer printers having a resolution of 1200 dpi or less can be used in accordance with the present invention.

New claim 23 specifies that the watermark of claim 6 "comprises features of another indicia on the envelope, which indicia features are subtly changed to alter the local luminance or color thereof." Leon does not teach or suggest such an arrangement.

Nor does he teach or suggest the arrangement of claim 24 (the watermark comprises a texture pattern), nor claim 25 (the plural bits of digital data represented by the watermark cannot be discerned by human inspection, even with magnification), nor claim 26 (the plural bits of digital data are randomized into a pattern), nor claim 27 (the watermark comprises a subtle background pattern that forms no part of any other marking on the envelope).

Claims 8-11 and 19 are also said to be anticipated by Leon. Again, such rejections are respectfully traversed. Even if any of the features disclosed by Leon is regarded to be a

steganographically encoded digital watermark, in no case does the “watermark” itself represent postage, as required by claims 8-11. Rather, Leon’s features serve other purposes, such as “the prevention and detection of fraud” (col. 8, line 22).

Concerning claim 11, the cited excerpt at col. 9, lines 41-52 is not understood to teach texturing. Rather, this passage relates to taggant beads that can be mixed with ink and applied by printing. (Claim 11 has been amended in minor respect to emphasize that the texturing is of a substrate surface by deformation thereof.)

The rejection of claim 19 as anticipated by Leon is likewise traversed. For example, the Action identifies a fluorescent stripe 418 as the claimed “second indicia conveying data associated with an authorized user of said envelope.” Leon’s fluorescent stripe is not understood to “convey data associated with an authorized user.” Rather, it is understood to discourage and detect counterfeits. No authorized user association is taught.

Moreover, there is no teaching in Leon by which his indicia 412/414 and fluorescent stripe 418 cooperate to confirm that use of the envelope by the first party is authorized. Admittedly, each of Leon’s indicia serves a purpose, but they don’t cooperate to achieve the purpose required by claim 19.

In addition to being rejected over Leon, claim 6 is also rejected as anticipated by Adler (6,275,599). This rejection is respectfully traversed. While Adler has some relevance to fragile watermarking, it appears to have no teaching or suggestion concerning envelopes – neither at cited passage col. 1, lines 23-26, nor elsewhere.

In a third rejection, claim 6 is said to be anticipated by Coppersmith (6,256,736). Again, however, Coppersmith does not appear to teach or suggest anything concerning envelopes.

In a fourth rejection, claim 6 (as well as claim 7) is said to be obvious over Zhao (6,754,822) in view of Leon.

Contrary to the statement in the Action, Zhao at col. 17, lines 20-24 is not understood to teach a “fragile digital watermark ... designed to evidence reproduction by scanning and printing.” Instead, that excerpt states:

For example, a copier could include a watermark agent that read the watermarks of paper documents being copied and prevented the copier from copying a document when its watermark indicated that the document was not to be copied.

No watermark that evidently changes through scanning/printing is disclosed. Instead, Zhao here simply teaches a photocopier that recognizes a watermark and prevents *any* copy from being made.

Thus, even if Zhao and Leon were combined as proposed, the claimed combination could not result.

Moreover, applicants respectfully submit that the Action has not set forth a satisfactory rationale for the proposed combination of two references. Merely asserting that two references are in the same field is not sufficient; there must be a suggestion leading the artisan to combine the cited elements in the manner claimed. None has been detailed.

In preparing the next Action, the Examiner is reminded that rejections should be confined to the best available art. The making of four different rejections of claim 6 – each on different art – is contrary to the instructions of MPEP § 706.02.

The Examiner is invited to telephone the undersigned if it might assist in avoiding a second appeal of the present application.

Date: February 25, 2005

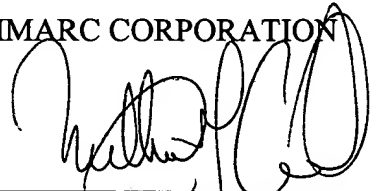
CUSTOMER NUMBER 23735

Phone: 503-469-4800

FAX 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION



By _____

William Y. Conwell

Registration No. 31,943